

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 17341 3/30/2001]

[Docket No. 99-CE-29-AD; Amendment 39-12148; AD 2001-06-01]

RIN 2120-AA64

Airworthiness Directives; The New Piper Aircraft, Inc. Models PA-31, PA-31-300, PA-31-325, PA-31-350, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, and PA-31P-350 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

**SUMMARY:** This amendment supersedes three existing airworthiness directives (AD's) that apply to certain The New Piper Aircraft, Inc. (Piper) Models PA-31, PA-31-300, PA-31P, PA-31T, and PA-31T1 airplanes. These AD's currently require you to repetitively inspect and/or modify the elevator structure. This AD initially retains the inspection and modification requirements that are currently required; adds certain other airplane models to the AD applicability; and requires a modification at a certain time period, as terminating action for the currently required repetitive inspections. This action coincides with the Federal Aviation Administration's (FAA) policy of incorporating modifications, when available, that will terminate the need for repetitive inspections. The actions specified by this AD are intended to continue to detect and correct damage to the elevator structure. A damaged elevator structure could lead to reduced or loss of control of the airplane.

**DATES:** This AD becomes effective on May 8, 2001.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of May 8, 2001.

**ADDRESSES:** You may get the service information referenced in this AD from The New Piper Aircraft, Inc., Customer Services, 2926 Piper Drive, Vero Beach, Florida 32960. You may examine this information at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-CE-29-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC 20001.

**FOR FURTHER INFORMATION CONTACT:** William O. Herderich, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6082; facsimile: (770) 703-6097; e-mail: william.o.herderich@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

**What prior AD action did FAA take on this subject?** The following AD's currently require you to repetitively inspect and/or modify the elevator structure on certain Piper Models PA-31, PA-31-300, PA-31P, PA-31T, and PA-31T1 airplanes.

- AD 70-26-06, Amendment 39-1132, currently requires you to repetitively inspect the elevator structure on Piper Models PA-31 and PA-31-300 airplanes, serial numbers 31-2 through 31-694. The AD requires you to modify the elevator structure if cracks are found;

- AD 76-03-01, Amendment 39-2505, currently requires you to modify the elevator structure on Piper Models PA-31T airplanes, serial numbers 31T-7400002 through 31T-7620012. This AD requires you to inspect the elevator support and replace any defective parts on Piper Model PA-31T airplanes, serial numbers 31T-7400002 through 31T-760012; and
- AD 80-02-15, Amendment 39-3676, currently requires you to inspect and alter the elevator structure and replace any defective parts on Piper Model PA-31P airplanes, serial numbers 31P-1 through 31P-7730012; Model PA-31T airplanes, serial numbers 31T-7400002 through 31T-7920075; and Model PA-31T1 airplanes, serial numbers 31T-7804001 through 31T-7904036 and 31T-7904038 through 31T-7904044.

**What has happened to necessitate further AD action?** Piper has informed FAA of reports of damage in the elevator structure area on additional airplanes. These are Piper Models PA-31-325, PA-31-350, PA-31T3, and PA-31P-350 airplanes.

On December 24, 1996, FAA issued a special airworthiness information bulletin (SAIB) to encourage compliance with new service information related to the elevator structure on the above-referenced airplanes. We continue to receive reports of damage in the elevator structure area on these airplanes.

**Has FAA taken any action to this point?** We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Piper Models PA-31, PA-31-300, PA-31-325, PA-31-350, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, and PA-31P-350 airplanes. This proposal was published in the *Federal Register* as a notice of proposed rulemaking (NPRM) on July 21, 2000 (65 FR 45319). The NPRM proposed to supersede AD 70-26-06, AD 76-03-01, and AD 80-02-15. The NPRM also proposed to initially retain the inspection and modification requirements currently required in AD 70-26-06, AD 76-03-01, and AD 80-02-15, add certain other airplane models to the AD applicability; and require a modification at a certain time period, as terminating action for the currently required repetitive inspections.

**Does this AD follow FAA's aging commuter-class aircraft policy?** The actions required in this AD are consistent with FAA's aging commuter aircraft policy, which briefly states that, when a modification exists that could eliminate or reduce the number of required critical inspections, the modification should be incorporated. This policy is based on our determination that reliance on critical repetitive inspections on airplanes utilized in commuter service carries an unnecessary safety risk when a design change exists that could eliminate or, in certain instances, reduce the number of those critical inspections. In determining what inspections are critical, we consider (1) the safety consequences of the airplane if the known problem is not detected by the inspection; (2) the reliability of the inspection such as the probability of not detecting the known problem; (3) whether the inspection area is difficult to access; and (4) the possibility of damage to an adjacent structure as a result of the problem.

The alternative to modifying the elevator structure on the affected airplanes will be to require you to repetitively inspect this area for the life of the airplane.

**Was the public invited to comment?** Interested persons were afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

#### **The FAA's Determination**

**What is FAA's final determination on this issue?** After careful review of all available information related to the subject presented above, we have determined that air safety and the public interest require the adoption of the rule as proposed except for minor editorial corrections. We determined that these minor corrections:

- will not change the meaning of the AD; and
- will not add any additional burden upon the public than was already proposed.

#### **Cost Impact**

**How many airplanes does this AD impact?** We estimate that this AD affects 2,344 airplanes in the U.S. registry.

**What is the cost impact of this AD on owners/operators of the affected airplanes?** We estimate the following costs to accomplish the modification:

<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Total Cost Per Airplane</b>	<b>Total Cost on U.S. Operators</b>
20 workhours X \$60 per hour = \$1,200.	\$600 per airplane.	\$1,200 + \$600 = \$1,800 per airplane.	\$1,800 X 2,344 = \$4,219,200.

We estimate the following costs to accomplish the initial inspection:

<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Total Cost Per Airplane</b>	<b>Total Cost on U.S. Airplane Operators</b>
8 workhours X \$60 per hour = \$480.	No parts required for the inspection.	\$480 per airplane.	\$480 X 2,344 = \$1,125,120.

Note: Accomplishment of the modification will eliminate the need for the repetitive inspections.

### **Regulatory Impact**

**Does this AD impact various entities?** The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

**Does this AD involve a significant rule or regulatory action?** For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption "ADDRESSES".

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. FAA amends § 39.13 by removing Airworthiness Directive (AD) 70-26-06, Amendment 39-1132; AD 76-03-01, Amendment 39-2505; and AD 80-02-15, Amendment 39-3676, and by adding a new AD to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "av-info.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2001-06-01 THE NEW PIPER AIRCRAFT, INC.:** Amendment 39-12148; Docket No. 99-CE-29-AD; Supersedes AD 70-26-06, Amendment 39-1132; AD 76-03-01, Amendment 39-2505; and AD 80-02-15, Amendment 39-3676.

(a) What airplanes are affected by this AD? This AD affects the following airplane models and serial numbers that are certificated in any category;

Note 1: Aircraft referred to as Model PA-31-310 are actually Model PA-31 airplanes. Actions specified for PA-31 airplanes must also be performed. See also AD 77-03-03, Piper Service Bulletin 529, and type certificate data sheet A20SO.

(1) Part I of this AD: Inspection, replacement, and installation as specified in Piper Service Bulletin No. 323, dated September 21, 1970:

Models	Serial Numbers
PA-31 and PA-31-300	31-2 through 31-694

(2) Part II of this AD: Modification as specified in Piper Service Bulletin No. 897B, Date: July 15, 1997:

Models	Serial Numbers
PA-31P	31P-1 through 31P-7730012
PA-31T	31T-7400002 through 31T-8120104
PA-31T1	31T-7804001 through 31T-8304003, and 31T-1104004 through 31T-1104017
PA-31T2	31T-8166001 through 31T-8166076, and 31T-1166001 through 31T-1166008
PA-31T3	31T-8275001 through 31T-8475001 and 31T-5575001

(3) Part III of this AD: Modification as specified in Piper Service Bulletin No. 1008, Date: September 30, 1997:

Models	Serial Numbers
PA-31, PA-31-300, and PA-31-325	31-2 through 31-8312019
PA-31-350	31-5001 through 31-8452021 and 31-8253001 through 31-8553002
PA-31P-350	31P-8414001 through 31P-8414050

(b) Who must comply with this AD? Anyone who wishes to operate any of the above airplanes must comply with this AD.

(c) What problem does this AD address? The actions specified by this AD are intended to detect and correct damage to the elevator structure. A damaged elevator structure could lead to reduced or loss of control of the airplane.

(d) What actions must be accomplished on airplane models and serial numbers listed in paragraph (a)(1) of this AD to address this problem? To address this problem on the airplane models and serial numbers listed in paragraph (a)(1) of this AD, you must accomplish the following actions:

<b>Action</b>	<b>Compliance Time</b>	<b>Procedures</b>	<b>Other Information</b>
(1) Initially inspect the rudder and elevator spars and elevator butt ribs for cracks.	Within 100 hours time-in-service (TIS) after the last inspection required by AD 70-26-06, and thereafter at intervals not to exceed 100 hours TIS until Piper Elevator and Rudder Hinge Replacement Kit No. 760 465 is incorporated.	In accordance with the instructions in Piper Service Bulletin No. 323, dated September 21, 1970.	This inspection is retained from AD 70-26-06.
(2) If cracks are found in the rudder or elevator structure during any inspection required by this AD, replace the cracked part, and either continue to reinspect or incorporate Kit No. 760 465.	Prior to further flight after the inspection where the cracks were found.	Do the inspections in accordance with the instructions in Piper Service Bulletin No. 323, dated September 21, 1970; or do the kit incorporation in accordance with the instructions to Piper Elevator and Rudder Hinge Replacement Kit No. 760 465, Revised October 25, 1989.	Not Applicable.
(3) Incorporate Piper Elevator and Rudder Hinge Replacement Kit No. 760 465.	Upon accumulating 2,000 hours TIS on the airplane or within the next 100 hours TIS after May 8, 2001 (the effective date of this AD), whichever occurs later.	Do this kit incorporation in accordance with the instructions to Piper Elevator and Rudder Hinge Replacement Kit No. 760 465, Revised October 25, 1989.	Not Applicable.

(e) What actions must be accomplished on airplane models and serial numbers listed in paragraph (a)(2) of this AD to address this problem? To address this problem on the airplane models and serial numbers listed in paragraph (a)(2) of this AD, you must accomplish the following actions:

<b>Action</b>	<b>Compliance Time</b>	<b>Procedures</b>	<b>Other Information</b>
(1) Modify the elevator trim tab system and elevator control tube, through the incorporation of Piper Kit No. 760 989.	Upon accumulating 2,000 hours TIS or within 100 hours TIS after May 8, 2001 (the effective date of this AD), whichever occurs later.	In accordance with the instructions to Piper Elevator Trim Tab System Modification Kit No. 760 989, as referenced in Piper Service Bulletin No. 477A, dated November 3, 1975.	This modification is retained from AD 76-03-01, and applies to Piper Model PA-31T airplanes, serial numbers 31T-7400002 through 31T-7620012. Credit for having performed this portion of the AD may be taken if the airplane is in compliance with the actions of AD 76-03-01.
(2) Incorporate Elevator Butt Rib Refinement Kit, Piper Part Number 766-219.	Upon accumulating 2,000 hours TIS or within the next 100 hours TIS after May 8, 2001 (the effective date of this AD), whichever occurs later.	Do this kit incorporation in accordance with the instructions to Elevator Butt Rib Refinement Kit, Piper Part Number 766-219, as referenced in Piper Service Bulletin No. 897B, Date: July 15, 1997.	Refinement Kit, Piper Part Number 766-219, may have been incorporated as specified in Piper Service Bulletin 897A. If so, credit for having performed this portion of the AD may be taken.

(f) What actions must be accomplished on airplanes listed in paragraph (a)(3) of this AD to address this problem? To address this problem on the airplanes listed in paragraph (a)(3) of this AD, you must accomplish the following actions:

<b>Action</b>	<b>Compliance Time</b>	<b>Procedures</b>	<b>Other Information</b>
Incorporate Elevator Butt Rib Reinforcement Kit, Piper Part Number 766-642.	Upon accumulating 2,000 hours TIS or within the next 100 hours TIS after May 8, 2001 (the effective date of this AD), whichever occurs later.	In accordance with the instructions to Elevator Butt Rib Reinforcement Kit, Piper Part Number 766-642, as specified in Piper Service Bulletin No. 1008, Date: September 30, 1997.	If AD 99-12-05, Amendment 39-11189, applies to one of the above-referenced airplanes, then the actions of AD 99-12-05 must be accomplished prior to incorporating Elevator Butt Rib Reinforcement Kit, Piper Part Number 766-642. No credit towards this AD is given for accomplishing the actions of Piper SB 864.

(g) Can I comply with this AD in any other way? You may use an alternative method of compliance or adjust the compliance time if:

- (1) Your alternative method of compliance provides an equivalent level of safety; and
- (2) The Manager, Atlanta Aircraft Certification Office (ACO), approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta ACO.
- (3) Alternative methods of compliance that were approved in accordance with any of the following airworthiness directives (all superseded by this action) are not considered approved for this AD:
  - (i) AD 70-26-06, Amendment 39-1132;
  - (ii) AD 76-03-01, Amendment 39-2505; and

(iii) AD 80-02-15, Amendment 39-3676.

Note 2: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(h) Where can I get information about any already-approved alternative methods of compliance? You can contact William O. Herderich, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6082; facsimile: (770) 703-6097; e-mail: william.o.herderich@faa.gov.

(i) What if I need to fly the airplane to another location to comply with this AD? The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(j) Are any service bulletins incorporated into this AD by reference? Actions required by this AD must be done in accordance with Piper Service Bulletin No. 323, dated September 21, 1970, Piper Elevator and Rudder Hinge Replacement Kit No. 760 465, Revised October 25, 1989; Piper Elevator Trim Tab System Modification Kit No. 760 989, as referenced in Piper Service Bulletin No. 477A, dated November 3, 1975; Elevator Butt Rib Refinement Kit, Piper Part Number 766-219, as referenced in Piper Service Bulletin No. 897B, Date: July 15, 1997; Elevator Butt Rib Reinforcement Kit, Piper Part Number 766-642, as specified in Piper Service Bulletin No. 1008, Date: September 30, 1997. The Director of the Federal Register approved these service bulletins and kits for incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You can get copies from The New Piper Aircraft, Inc., Customer Services, 2926 Piper Drive, Vero Beach, Florida 32960. You can look at copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC 20001.

(k) Does this AD action affect any existing AD actions? This amendment supersedes the following AD actions:

- (1) AD 70-26-06, Amendment 39-1132;
- (2) AD 76-03-01, Amendment 39-2505; and
- (3) AD 80-02-15, Amendment 39-3676.

(l) When does this amendment become effective ? This amendment becomes effective on May 8, 2001.

Issued in Kansas City, Missouri, on March 9, 2001.

James E. Jackson, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.